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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Application of

MISSLITZ et al

Serial No. 08/537,843

Filed: October 19, 1995

For: 3-(Het)arylcarboxylic acid derivatives, their preparation and intermediates for their preparation

D E C L A R A T I O N

I, Ulf Misslitz, a doctor of natural sciences, a citizen of Germany and residing at 40, Am Herzel, 67433 Neustadt, Germany, declare as follows:

I am a fully trained chemist, having studied chemistry at the Universities of Hamburg, Germany, from 1978 to 1984 and 1986 to 1987 and Princeton, USA, from 1984 to 1986;

I was awarded my doctor's degree by the University of Hamburg in 1987;

I was a post-doctoral fellow at the ETH in Zürich, Switzerland, from 1987 to 1988;

since 1988, when I joined BASF Aktiengesellschaft of 67056 Ludwigshafen, Germany, I have been engaged in the synthesis of herbicides and herbicide screening.

I am familiar with the field to which the invention disclosed and claimed in Application Serial No. 08/190,157 relates.

I have studied the Office Action that has issued in this case and read the references cited therein.

In order to prove the superior herbicidal action of the inventive 3-(Het)arylcarboxylic acid derivatives I over the compounds of Harada et al (US 5,178,663), Harada et al (CA 119:139254e) and Kaku et al (EP 0 347 811) I compared the herbicidal activity of compounds according to application Serial No. 08/537,843 with the structurally closest compounds of Harada and Kaku.

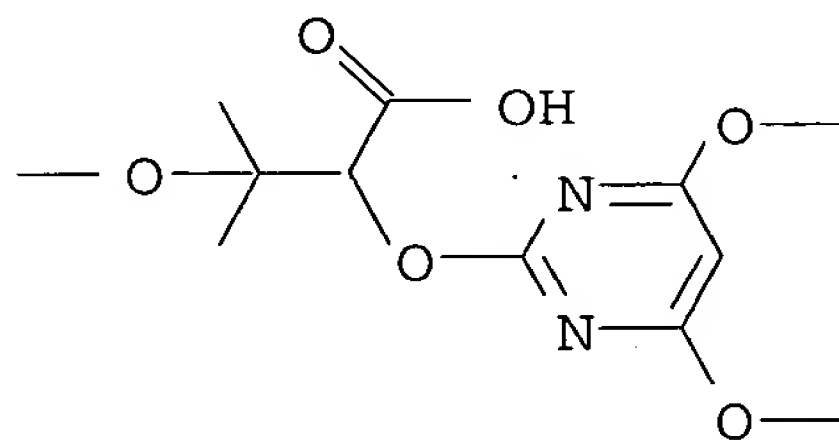
The experiments were carried out as described in application Ser. No. 08/537,843 on page 33.

The plants used in the greenhouse experiments consisted of the following species:

Botanical Name	Common Name	Abbreviation
<i>Alopecurus myosuroides</i>	blackgrass	ALOMY
<i>Galium aparine</i>	catchweed bedstraw	GALAP
<i>Setaria faberii</i>	giant foxtail	SETFA
<i>Veronica spp.</i>	speadwell	VERSS

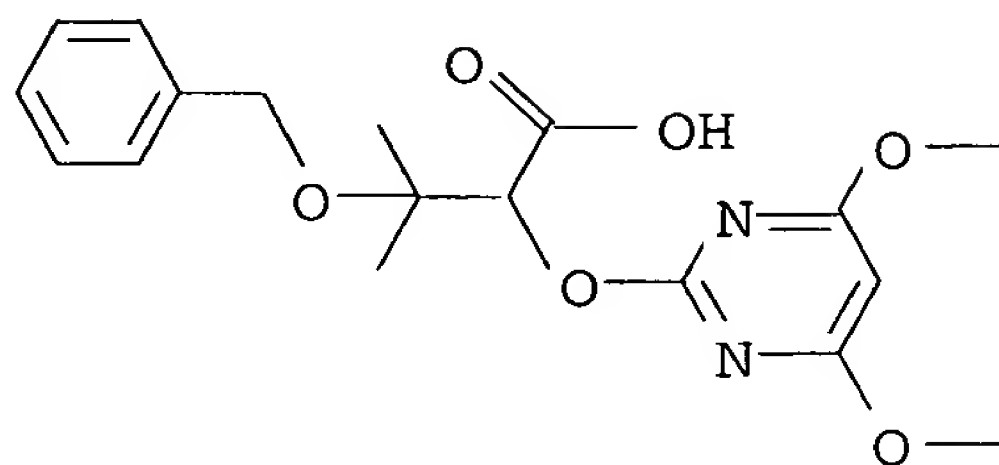
I. Test compounds:

- a) According to Harada et al (US 5,178,663), example no. 21; comparison compound A:



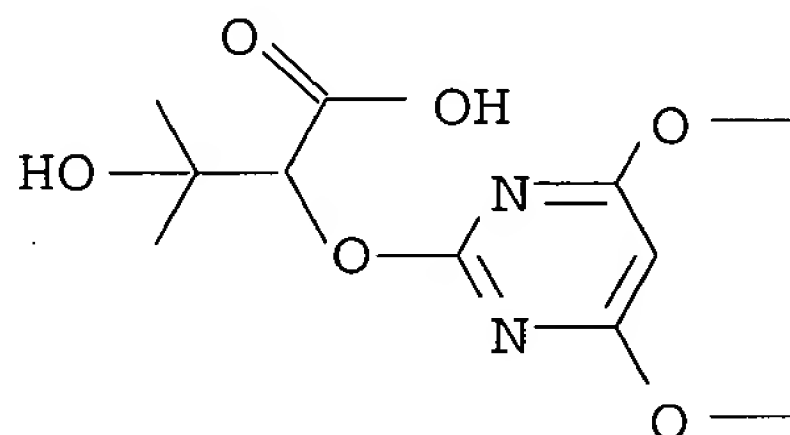
A

- b) According to Harada et al (CA 119:139254e);
comparison compound B:



B

- c) According to Kaku et al (EP 0347811);
comparison compound C:

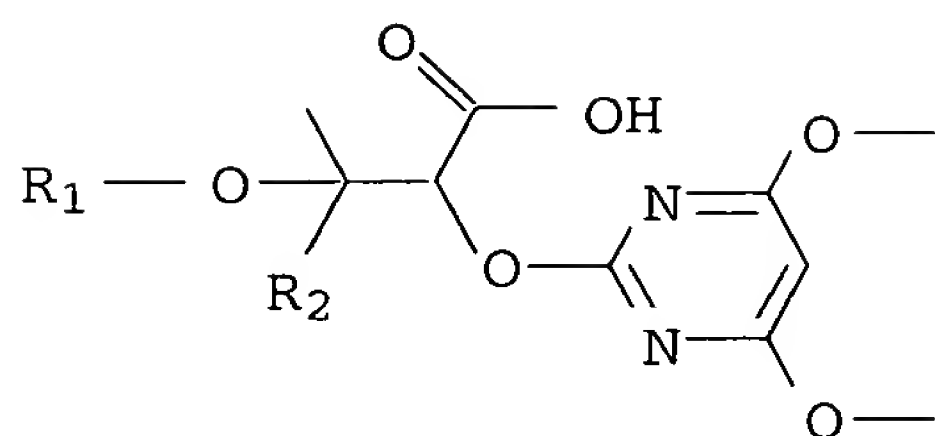


C

II. Experiments:

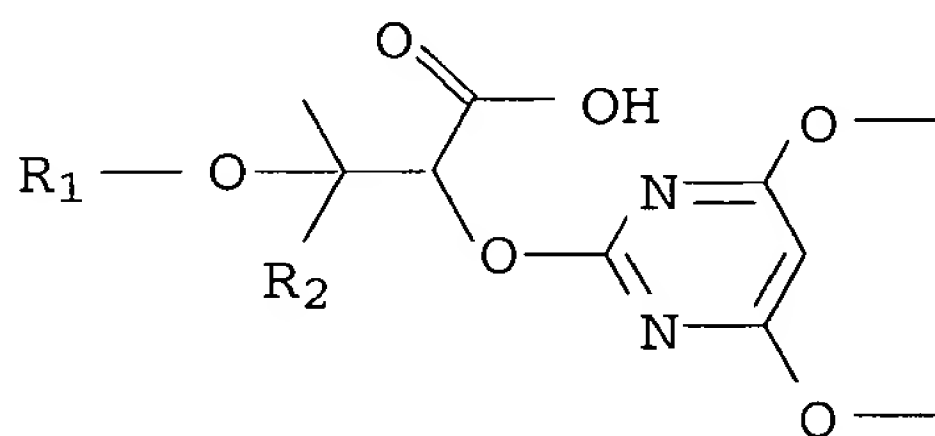
The following tables 1 to 3 show the herbicidal action of the tested compounds in the greenhouse (postemergence applications):

Table 1



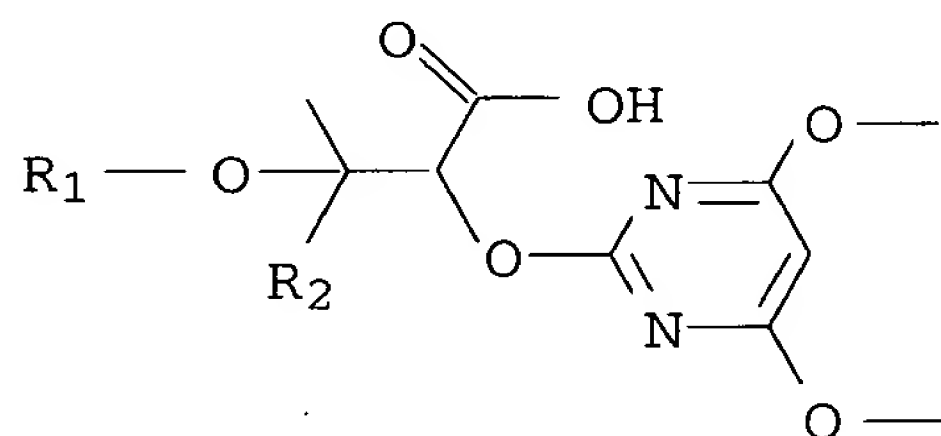
Compound	A			
R ₁	CH ₃		CH ₃	
R ₂	Phenyl-p-F		CH ₃	
Application rate kg/ha a.S.)	0.5	0.25	0.5	0.25
Test plants	damage in %			
ALOMY	95	95	70	70
GALAP	85	80	75	70
VERSS	90	85	70	70

Table 2



Compound		B
R ₁	CH ₃	CH ₂ - Phenyl
R ₂	Phenyl - p - F	CH ₃
Application rate kg/ha a.S.)	0.5 0.25	0.5 0.25
Test plants	damage in %	
ALOMY	95 95	50 40
GALAP	85 80	80 80
SETFA	90 85	20 0

Table 3



Compound		C
R ₁	CH ₃	H
R ₂	Phenyl - p - F	CH ₃
Application rate kg/ha a.S.)	0.5 0.25	0.5 0.25
Test plants	damage in %	
ALOMY	95 95	10 10
GALAP	85 80	50 40
VERSS	90 85	25 20

The tables clearly demonstrate that the compounds according to application Serial No. 08/537,843 show a high activity and are most suitable for controlling unwanted plants, whereas the herbicidal action of the comparative compounds A, B and C on the unwanted grasses is totally insufficient.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information or belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Mel M. Weitz
Signature of Declarant